



# Connecticut Department of Energy and Environmental Protection



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

# Potable Well Water

## *A Status Report*

*September 11, 2013*

Assistant Director Jan Czeczotka  
Remediation Division  
Bureau of Water Protection & Land Reuse



Connecticut Department of Energy and Environmental Protection

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# Tobacco Farming

- The Connecticut River Valley has been used for the production of tobacco for over 300 years
- EDB, or ethylene dibromide, was a chemical pesticide used for many years by the tobacco farmers from the 1940's to the 1980's
- EDB was thought to stay in soil after application and therefore not expected to leach into groundwater



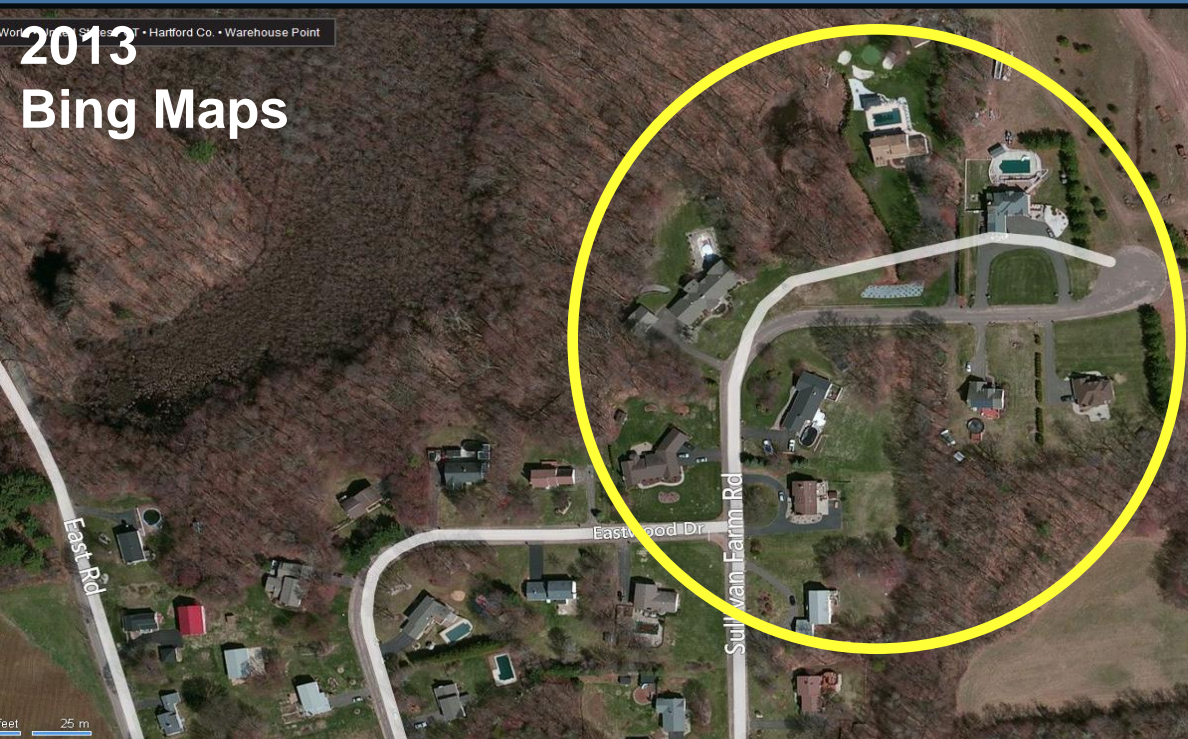
# EDB impacts to drinking water

- DEEP/DEP sampling of potable wells in the 1980's identified widespread pesticide contamination (EDB) in drinking water wells in towns where tobacco was grown
- EDB poses a potential unacceptable risk to human health at low concentrations in drinking water





# Land Use Change Over Time



1986



# Pursuit of Responsible Parties

- DEEP/DEP filed a lawsuit against tobacco growers and manufactures of EDB
- DEEP/DEP reached a settlement agreement (Agreement) with those parties to provide for potable water for a 30 year period



# Settlement Agreement

- Since 1988 in accordance with the Agreement, DEEP/DEP has been sampling drinking water wells and providing for:
  - Connection to municipal water line where available
  - Installation of carbon filters where a water line was not available





# Terms of Agreement

- Key terms of the Agreement
  - EDB level is at or above 0.1 ug/l or parts per billion (ppb) which was the Dept. of Public Health (DPH) Action Level in 1988
  - Homes constructed in or prior to 1988
    - Filter installation, maintenance and monitoring paid for from settlement money
  - Homes constructed after 1988
    - Homeowner and developers purchased filter and settlement money pays for maintenance and monitoring



# Changing Action Levels

- In 1996, the Department of Public Health (DPH) revised the Action Level for EDB from 0.1 ppb to 0.05 ppb



# Addressing Wells <0.1ppb

- Funds from the Agreement can only be used to address homes with EDB concentrations at or above 0.1 ppb
- Homes with EDB below 0.1 ppb were addressed using statutory authority in Section 22a-471 and funding from the State General Fund



# Public Act 13-247

- Public Act 13-247
  - Removed the funding source and statutory authority used by DEEP to subsidize the costs of installing, maintaining and monitoring residential wells
  - Left intact the long-term potable water provisions
    - Orders to responsible parties
    - Consent Orders with Municipalities
  - Does not affect EDB Settlement Agreement
    - DEEP will continue maintenance and monitoring of homes under the Agreement



# East Windsor

- There are 251 properties with GAC filters
  - 161 of these are covered by the Agreement
  - 90 were maintained and monitored using General Funds
    - 84 of these are EDB/ 1,2,3-Trichloropropane (TCP)
    - 6 of these are Tetrachloroethylene (PCE)/ Trichloroethylene (TCE)



# Properties in East Windsor with GAC Filters

Windsor Locks

Enfield

EDB Settlement Area

Ellington

Windsor

South Windsor

**Legend**

Properties with Filters

- DEEP Fund
- EDB Fund

EDB Settlement Areas

Water Service Areas

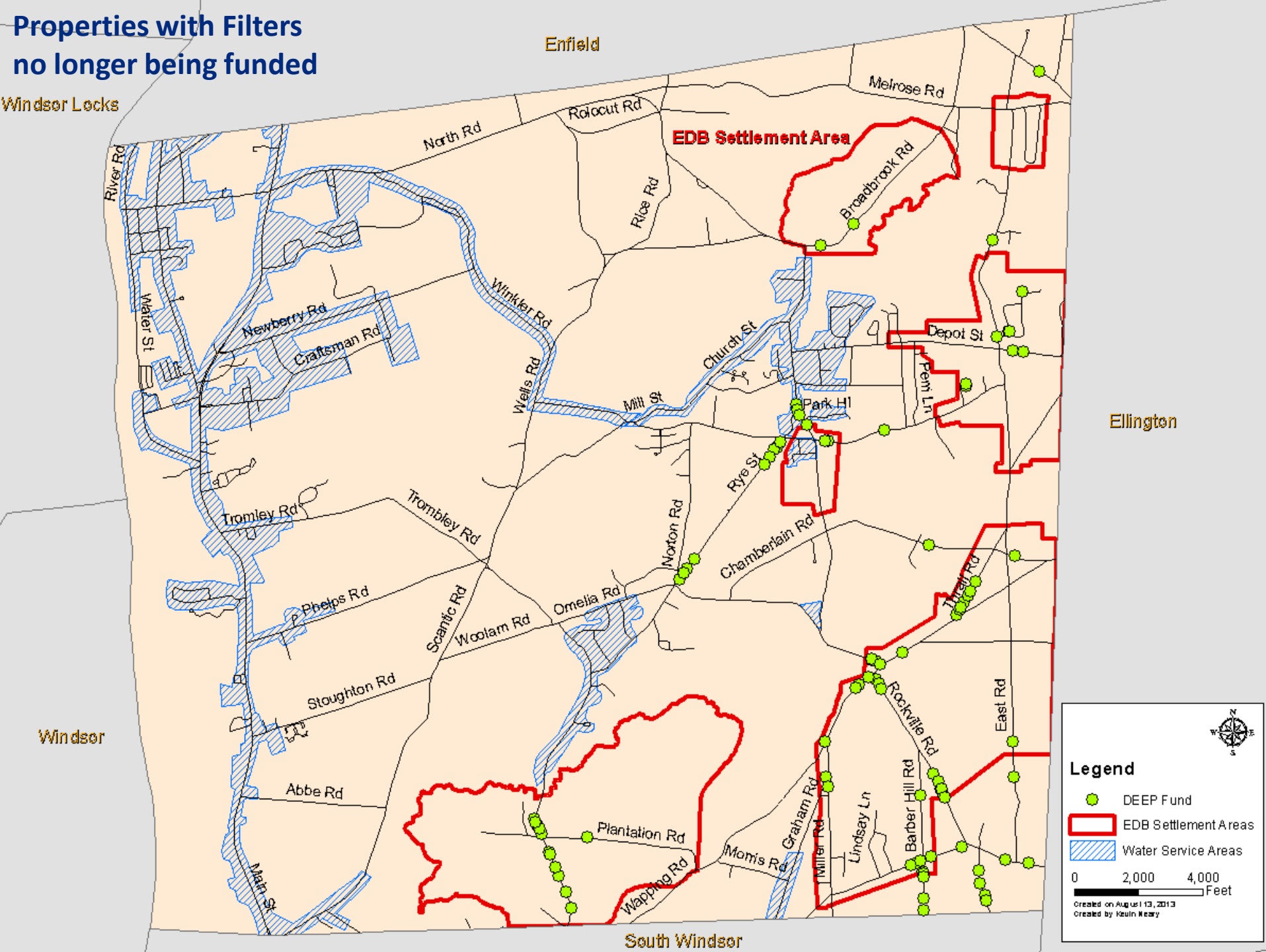
0 2,000 4,000 Feet

Created on August 13, 2013  
Created by Kevin Heary



# Properties with Filters no longer being funded

Windsor Locks

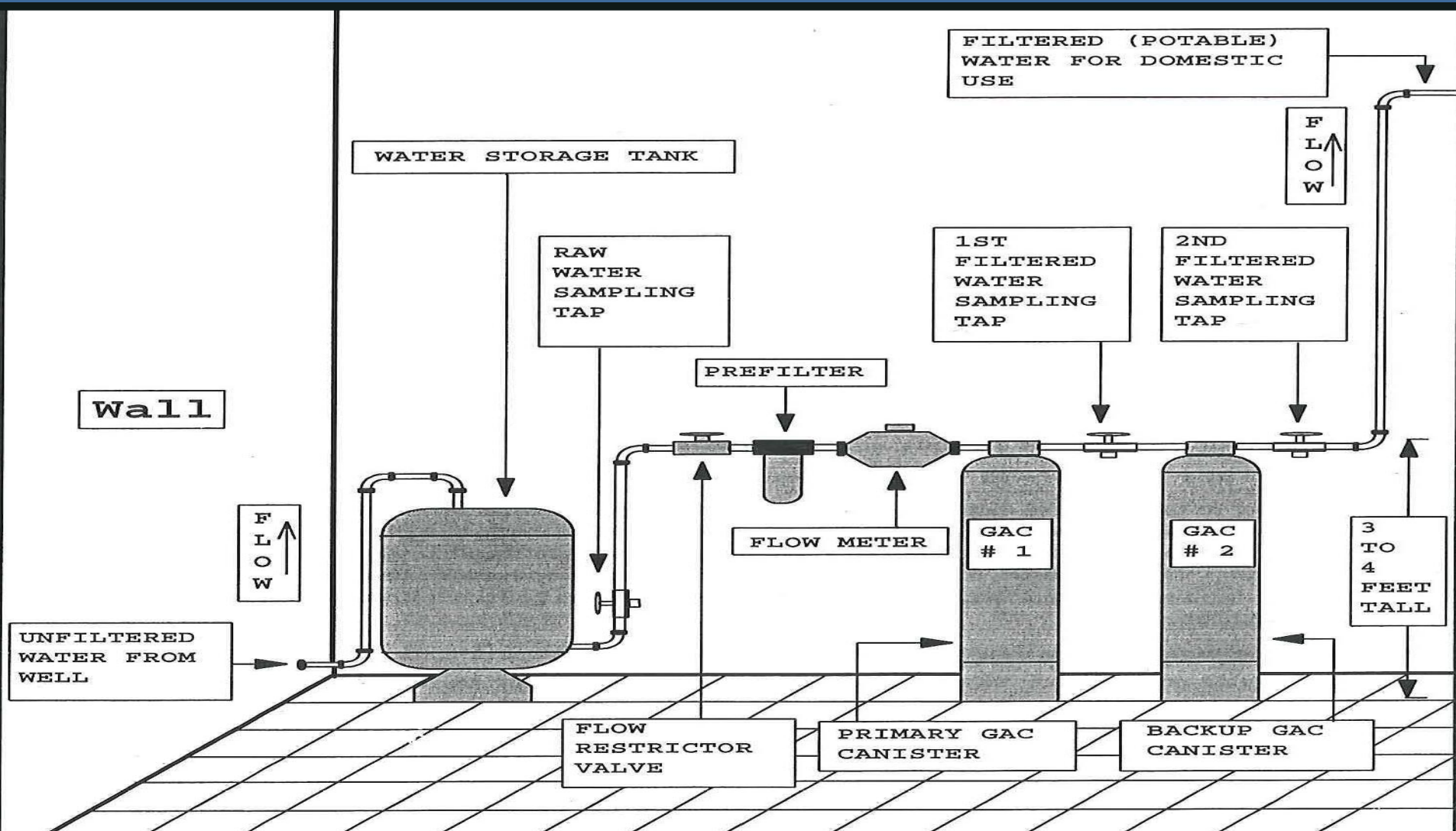


# East Windsor

- For wells that are no longer subsidized by State Funds to maintain filters-  
Owners have two options:
  - keep system installed by the State and have monitoring and maintenance done at their own expense, or
  - Request that DEEP have system removed and the owner can then have a system of their choice installed at the owner's expense



# Typical GAC Filter System



# Estimated Annual GAC Filter Costs

- Change out of carbon= **\$280.00**
  - Bi-annual change out is recommended
- **Emergency plumbing call=\$500.00**
- 1 ½ pack (9 cartridges) of sediment filters=**\$100.00**
- **1 EDB water sample test if the homeowner wants additional information regarding filter performance=\$50-75**
- **Total-\$380-\$955/year or \$32-80/month**



# Potential Water Supply Options

- Issue Order to Municipality to Supply Water
  - Order requires study of cost-effective options
    - Filter vs. water line
  - Seek authorization from the State Bond Commission for study
  - When the most cost-effective option is determined, then funding is sought from the State Bond Commission to implement the most cost effective option



# Information

Aqua Pump, Inc.

169 West Stafford Road, Stafford Springs, CT 06076

Telephone number: 860-684-5349 or 1-800-642-0420 (toll free)

Fax number 860-684-1426

\* There are also other contractors who are qualified to perform this service



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# Information

## Private Wells

There are approximately 400,000 private wells in Connecticut that serve approximately 15% of the state's population of 3,510,300 persons. About 526,545 people are served by their own domestic drinking water source.

Private (domestic) wells are not currently regulated by the US Environmental Protection Agency (EPA) therefore private well owners are responsible for the quality of their own drinking water.

Local Health Departments/Districts have the authority over private wells in their respective towns. Private wells should be properly sited and approved before being constructed.

For technical advice on well water construction, maintenance, quality or treatment contact your Local Health Department/District or the Department of Public Health – Private Water Program at 509-7296.



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## Homeowner's Checklist

- [Well Driller's Roster \(Department of Consumer Protection\)](#)
- [Listing of Local Health Departments](#)
- [What to test for?](#)
- [Well Siting Requirements](#)
- [Groundwater and Well Contamination](#)
- [Disinfection Procedure for Private Wells](#)
- [Private Well Testing \(pdf\)](#)
- [Private Drinking Water Standards \(pdf\)](#)

## [List of Approved Laboratories](#)

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## Realtor Information

- Environmental Protection Agency: [What Every Realtor Should Know About Private Drinking Water Wells \(pdf\)](#)



# Information

- <http://www.ct.gov/dph/>



# Information

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